

IN THE CLAIMS:

Claims 1 through 23 and 26 through 30 were previously cancelled. Claims 24 and 31 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

1.-24. (Cancelled)

24. (Currently amended) An electronic device, comprising:
a semiconductor substrate;
an electrically conductive layer disposed on at least one side of the semiconductor substrate,
~~comprising;~~ comprising:
a voltage reference plane substantially covering the at least one side of the semiconductor
substrate and configured for operable coupling to a voltage reference signal;
a plurality of signal trace slots disposed in the voltage reference plane; and
a plurality of signal traces disposed in the plurality of signal trace slots;
wherein the plurality of signal traces are electrically isolated from the voltage reference
plane by a gap in the electrically conductive layer with a gap distance sufficient to
avoid an electrical short between the plurality of signal traces and the voltage
reference plane; and
wherein the voltage reference plane provides a continuous electrical connection around
each of the plurality of signal trace slots such that at least a portion of the voltage
reference plane is disposed between any two of the plurality of signal traces to
reduce cross talk between signals carried by the any two of the plurality of signal
traces; and
a plurality of solder balls disposed on the at least one side of the semiconductor substrate,
wherein at least one of the plurality of solder balls is operably coupled to at least one of

the plurality of signal traces and at least one of the plurality of solder balls is operably coupled to the voltage reference signal;

wherein at least one of the plurality of signal traces includes at least one direction change in the length thereof over the semiconductor substrate.

25. (Previously presented) The electronic device of claim 24, further comprising a passivation layer disposed on the electrically conductive layer.

26.-30 (Cancelled)

31. (Currently amended) An electronic system, comprising:
a processor;
a memory device;
at least one input device;
at least one output device; and
at least one data storage device;
wherein at least one of the processor, the memory device, the at least one input device, the at least one output device and the at least one data storage device includes an electronic device comprising:
a semiconductor substrate; and
an electrically conductive layer disposed on at least one side of the semiconductor substrate, ~~comprising~~; comprising:
a voltage reference plane substantially covering the at least one side of the semiconductor substrate and configured for operable coupling to a voltage reference signal;
a plurality of signal trace slots disposed in the voltage reference plane; and
a plurality of signal traces disposed in the plurality of signal trace slots;

wherein the plurality of signal traces are electrically isolated from the voltage reference plane by a gap in the electrically conductive layer with a gap distance sufficient to avoid an electrical short between the plurality of signal traces and the voltage reference plane; and

wherein the voltage reference plane provides a continuous electrical connection around each of the plurality of signal trace slots such that at least a portion of the voltage reference plane is disposed between any two of the plurality of signal traces to reduce cross talk between signals carried by the any two of the plurality of signal traces; and

a plurality of solder balls disposed on the at least one side of the semiconductor substrate, wherein at least one of the plurality of solder balls is operably coupled to at least one of the plurality of signal traces and at least one of the plurality of solder balls is operably coupled to the voltage reference signal;

wherein at least one of the plurality of signal traces includes at least one direction change in the length thereof over the semiconductor substrate.